



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,240	02/11/2004	You-Chang Ko	P-0623	9913
34610 7590 06/11/2007 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200			EXAMINER VO, NGUYEN THANH	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 06/11/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/775,240	KO, YOU-CHANG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nguyen Vo	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☒ Claim(s) 6,12-16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 7-11 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6, 12-16, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art of figures 1-3 admitted by applicant in the present specification (see figures 1-3, paragraphs [0012]-[0014]) in view of document "Broadband Radio Access Networks" (submitted by applicant) and the article "Throughput Performance of WLANs Operating at 5GHz Based on Link Simulations with Real and Statistical Channels" of Doufexi (hereinafter simply referred to as Doufexi).

As to claim 6, the admitted prior art discloses a method for analyzing data transmission throughput in a wireless LAN, comprising calculating a number of symbols allocated to signaling (see paragraph [0013]), subtracting the calculated number of symbols from a total number of symbols allocated to the one MAC frame (see paragraph [0013]); and displaying data transmission throughput based on the result of the subtraction (see "throughput display" in figure 3). The admitted prior art fails to disclose calculating a number of symbols allocated to sector classification and terminal classification in one MAC frame as recited in the claim. The document "Broadband Radio Access Networks" discloses propagation delay guard times ("terminal classification" as claimed) and sector switch guard times ("sector

Art Unit: 2618

classification" as claimed) in a MAC frame (see sections 6.9.4.2 and 6.9.4.3). Doufexi discloses that sources of overhead such as gap time, preamble, header fields are to be evaluated in calculating data transmission throughput of wireless LAN (see section 4). Since propagation delay guard times and sector switch guard times of a MAC frame in document "Broadband Radio Access Networks" are nothing but sources of overhead, they are to be evaluated in calculating data transmission throughput as taught by Doufexi. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of the document "Broadband Radio Access Networks" and Doufexi to the admitted prior art, in order to calculate the data transmission throughput more accurately.

As to claim 12, it is rejected for similar reasons as set forth in claim 6 above.

As to claim 13, the admitted prior art discloses the claimed limitations (see "throughput display" in figure 3).

As to claims 14-16, the combination of the admitted prior art, document "Broadband Radio Access Networks" and Doufexi discloses the claimed limitation (see document "Broadband Radio Access Networks", section 6.9.2).

As to claim 18, the admitted prior art discloses a MAC frame as claimed (see the present specification, paragraph [0013]).

As to claims 19-20, they are rejected for similar reasons as set forth in claim 6 above.

### ***Allowable Subject Matter***

3. Claims 1-5 are allowed.

As to claims 1-5, the prior art of record fail to disclose or render obvious analyzing data transmission throughput in a wireless LAN using a ceiling function-processing as specified in claim 1.

4. Claims 7-11, 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 7-11, the prior art of record fail to disclose or render obvious analyzing data transmission throughput in a wireless LAN using a ceiling function-processing as specified in claim 7.

As to claim 17, the prior art of record fail to disclose or render obvious the way the symbols of the DL PDU except the LCH is obtained as specified in the claim.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Uchida (US 2005/0113028 A1) discloses analyzing data transmission throughput.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nguyen Vo  
Primary Examiner  
Art Unit 2618

*Nguyen Vo*  
5-29-2007